



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/651,137	08/28/2003	Pia Kopf	41118US	8178
29450	7590	07/29/2005	EXAMINER	
BARLEY SNYDER, LLC 1000 WESTLAKES DRIVE, SUITE 275 BERWYN, PA 19312			HYEON, HAE M	
			ART UNIT	PAPER NUMBER
			2839	

DATE MAILED: 07/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/651,137

Applicant(s)

KOPF ET AL.

Examiner

Hae M. Hyeon

Art Unit

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-10 and 13-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-10 and 13-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 2 is objected to because of the following informalities: Claim 2, line 9, "a plug housing" should be -- the plug housing --.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2-10, 13-17, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowen et al (US 5,039,456) in view of Watanabe et al (US 4,832,720) and Hattori (US 6,336,821 B1).

Bowen discloses an optical short-circuit plug assembly comprising a plug housing 6 enveloping a plug 2 and 3, a short-circuit insert 10 having a plug region 17 and 18 with two mutually parallel optical fiber ends 15 and 16 of an optical fiber portion 11 in which the optical fiber portion 11 has a curved portion guided in an arc of substantially 180 degrees. Figure 3 shows the arc of the optical fiber portion being enveloped in a plastic carrier 12. The short-circuit insert 10 has a latching means 31 and 32 for a primary securing mechanism for securing the short-circuit insert in the plug housing 6 which is a socket connector. Therefore, Bowen does not disclose the plastic carrier 12 having one or more shoulders (latching rings) for primary

Art Unit: 2839

securing and secondary securing of the short-circuit insert 10 in the plug housing 6. Also, Bowen does not disclose the optical fiber portion 11 to be formed of a multi-component glass core with cladding or a multi-core glass fiber with cladding.

Hattori discloses a connector comprising a plug 40 and a socket 20, wherein the socket has outer and inner tubular portions 21 and 22 having axially corrugated inner and outer surfaces 23, respectively, defining an annular deep groove (shoulders) therebetween; and the plug 40 has an annular tip having axially corrugated inner and outer surface 41. When the annular tip of the plug 40 is inserted into the annular groove of the socket 20, the corrugated surfaces 41 of the plug 40 engage the corrugated surfaces 23 of the socket 20, thus strongly coupling the plug 40 and the socket 20 together (see column 2, lines 52-62).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the optical short-circuit insert taught by Bowen such that it would have one or more shoulders for primary securing and secondary securing of the short-circuit insert in a plug housing as taught by Hattori because the shoulders provides strong coupling between the plug and the socket.

Regarding a multi-core glass fiber with a cladding, Watanabe discloses an optical fiber formed of a multi-core glass fiber with a cladding (see column 8, lines 55-58) having the cladding with a refractive index lower than of the core fibers. The multi-core optical fiber of Watanabe provides improved dimensional accuracy.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the optical short-circuit plug assembly taught by Bowen such that it would have a multi-core glass fiber with cladding as taught by Watanabe to provide a multi-core glass fiber with improved dimensional accuracy. Also, the use of a multi-core class

Art Unit: 2839

fiber only deals with using one type of optical fiber over another type, which does not change or affect the optical short-circuit plug assembly.

Regarding to claim 17 which reciting a bend radius of the optical fiber, since the optical fiber of Watanabe is the same type optical fiber and has a smaller size core, it is inherent that the optical fiber of Watanabe has a bend radius of less than 5 mm.

Regarding to claims 3-6, 8-10, 15 and 16, these claims recite different sizes of components in the optical short-circuit plug assembly. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

4. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bowen et al (US 5,039,456), Watanabe et al (US 4,832,720) and Hattori (US 6,336,821 B1) as applied to claims 2-10, 13-17, and 19-21 above, and further in view of Graham et al (US 4,952,798).

Claim 18 recites that the housing comprises two halves that are joined around the optical fiber. While Bowen does not show two halves of the housing, Graham discloses the same optical simulator 10 comprising a housing having two halves 13 and 14.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the housing taught by Bowen such that it would have two halves as taught by Graham because a housing made of two halves is well known and common knowledge.

Response to Arguments

5. Applicant's arguments with respect to claims 2-10 and 13-21 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2839

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent No. 6,179,639 B1 by Kuwahara et al., US Patent No. 6,394,830 B1 by Huang, US Patent Application Publication No. 2003/0032321 A1 by Wertz et al., and US Patent No. 6,558,180 B2 by Nishimoto.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hae M. Hyeon whose telephone number is 571-272-2093. The examiner can normally be reached on Mon.-Fri. (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tulsidas C. Patel can be reached on (571) 272-2098. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hae M Hyeon
Primary Examiner
Art Unit 2839

hnh

hnh

Hae Moon Hyeon